

282639

May 28, 2004

Docket Management System
Docket No. FAA-2004-17460 - 7
U.S. Department of Transportation
Room Plaza 401, 400 Seventh St., NW
Washington, DC 20590-0001

**RE: Comments for the Scoping Process for Lake Mead National Recreation Area
(NMNRA) Air Tour Management Plan (ATMP)**

To Whom It May Concern:

These comments are submitted on behalf of the Grand Canyon Trust, The Wilderness Society, and the Sierra Club. Our combined memberships total over 1,000,000 persons spread throughout the United States.

The *Grand Canyon Trust* is a regional conservation group dedicated to protecting the canyon country of the Colorado Plateau. A longstanding goal of the *Grand Canyon Trust* is to restore natural quiet to the Grand Canyon, Zion, and Bryce Canyon, and to preserve natural quiet at Canyonlands, Arches, and other units of the National Park System in Arizona and Utah. The *Wilderness Society* works to protect America's wilderness and to develop a nationwide network of wildlands through public education, scientific analysis, and advocacy. The *Sierra Club* purpose is to "explore, enjoy, and protect the wild places of the earth; to practice and promote responsible use of the earth's ecosystem and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment, and to use all lawful means to carry out these objectives."

Our members visit public lands to experience nature, scenic wonders, and natural soundscapes, including times of deepest quiet and stillness, as well as to enjoy the many historic and cultural features – all of which our nation has chosen to preserve for posterity.

The management of commercial air tours and other aviation over national parks and wilderness is of great concern. Parks such as Lake Mead National Recreation Area are subject to overflights by many tens of thousands of commercial air tours every year. Commercial air tours in such volume can *fragment and disrupt* the Park experience for visitors. The auditory and visual intrusion can rob the visitor experience of those visiting the Park with the goal of seeking peace and a sense of remoteness, solitude, and contemplative recreation.

Our expectation is that the Federal Aviation Administration will work closely with the National Park Service (NPS) to regulate commercial air tours over the Lake Mead

National Recreation Area in a way that guarantees the visitors – particularly those in designated noise-sensitive zones – will be able to dependably experience natural quiet without air tour fragmentation and obliteration.

Grand Canyon-Parashant National Monument

"Full of natural splendor and a sense of solitude, this area remains remote and unspoiled, qualities that are essential to the protection of the scientific and historic resources it contains."

President William Jefferson Clinton
January 11, 2000

With these words, the presidential proclamation established a vision and mandate whereby the Grand Canyon-Parashant National Monument (GCPNM) came into being. This Proclamation is the Department of the Interior's mandate for managing these BLM and NPS lands. The Proclamation identifies the specific resources that are so significant as to merit National Monument status under the Antiquities Act of 1906. These cited resources are known as "objects of historic and scientific interest," and the Department of the Interior is required to protect them. For the Arizona Strip, these "objects of interest" include wildlife, archeological, geological, and scenic resources in the Monuments.

The Proclamation further stressed that this undeveloped remote area was located "on the edge of one of the most beautiful places on earth, the Grand Canyon." It is, as President Clinton further proclaimed, a "geologic treasure," whose striking sedimentary rock layers afford a great deep-time journey into "understanding the geologic history of the Colorado Plateau," a history "spanning almost 2 billion years." We request that the FAA consider that the Monument's proclamation clearly identifies solitude and the area's remote and unspoiled qualities as essential to the protection of the scientific and historic resources it contains.

The GCPNM is jointly managed by the National Park Service (NPS) and the Bureau of Land Management (BLM), with the NPS having primary management authority over the southern portion. These agencies are currently working on a Resource Management Plan (RMP) for this Monument and the rest of the Arizona Strip. This RMP will determine recreation, motorized and non-motorized travel, wildlife, and other critical management decisions for the next ten to fifteen years. The draft RMP and Environmental Impact Statement (EIS) for this area are due to be released in approximately September 2004. We request that the FAA consult with the Monument planning staff to ensure the LMNRA Air Tour Management Plan is consistent with the desired future conditions that the RMP determines for this area.

Air Tour Operations within Grand Canyon-Parashant National Monument

Any portion of the Grand Canyon Parashant National Monument that comes under purview of this Air Tour Management Plan (ATMP) scoping is of critical concern environmentally.

However, the actually applicable GCPNM acreage for this particular ATMP planning effort appears constrained by two factors:

1. A Special FAA Flight Rules Area (SFAR 50-2) has preemptory aviation control in much of the LMNRA portion of the GCPNM. This restricted zone was established long ago, to advance requirements of the National Parks Overflights Act, pertaining to the substantial restoration of the natural quiet of Grand Canyon National Park.
2. The great bulk – though not all – of the GCPNM to the north of SFAR 50-2, is administered by the Bureau of Land Management (BLM). The BLM portion does not fall under purview of the National Parks Air Tour Management Act, excepting only that one-half mile wide BLM strip abutting the LMNRA northern boundary.

This leaves the southern NPS-administered portion of the Monument to address in terms of an ATMP. Of these, the major portion – 185,000 acres – has been designated by the Park Service as “Lands Meeting Suitable Wilderness Act Criteria”¹, or else as “Primitive” or “Semi-Primitive” as per the Lake Management Plan. In addition, the Arizona Wilderness Coalition has conducted extensive, on-the-ground inventories that identified 185,533 acres of wilderness-quality lands within the NPS-administered portion of GCPNM.

Another key consideration – aside from these co-administered lands’ noise-sensitive status – has to do with the Grand Canyon National Park just to the south. Any tour aircraft operating over these *particular* GCPNM lands would also be on routes within two to ten nautical miles of the Grand Canyon National Park Boundary. Since aircraft noise easily travels two miles and sometimes ten miles, any such aircraft would be emitting noise which would often be audible within the national park itself.

Admission of additional tour aircraft or routes, via an ATMP, and which utilize the LMNRA areas of the GCPNM, would undermine or destroy the wilderness character of such lands. It would further be counter to the challenging goal of substantially restoring natural quiet of the Grand Canyon National Park to the south (which by presidential directive must be reached by 2008).

¹ See Map (Figure 7), “Proposed and Potential Wilderness, LMNRA Portion of GCPNM”, page 41, the Aerial Operations within Lake Mead National Recreation Area – Environmental Assessment. February, 2004. Department of the Interior, National Park Service. Available online at <http://www.nps.gov/lame/airopsea.pdf>.

KEY POINT: Therefore, the only appropriate course of action is for the FAA to wholly prohibit any air tour overflight within the NPS-administered portions of the GCPNM/LMNRA, and within any other portion of the GCPNM within ten nautical miles of the Grand Canyon National Park boundary.

Wilderness, and "Wilderness Character"

"The Power of Imagination Makes Us Infinite."

■ John Muir

*"Imagination is more important than Knowledge;
Knowledge is limited; Imagination embraces the entire world."*

■ Albert Einstein

Wilderness, and equally important "Wilderness Character" of proposed or designated wilderness, is a most critical dimension of the Lake Mead National Recreation Area and of the Grand Canyon-Parashant National Monument. The NPS maps distributed at the scoping hearings on April 27 reveal the large extent (677,000 acres) of designated or proposed wilderness within LMNRA. (Also identified are "primitive" and "semi-primitive" lake management zones, which are correspondingly noise-sensitive.²)

There are several new Y2002-designated wilderness units in the Nevada/Arizona portion of LMNRA. Within the GCPNM a still more "ultimate" wilderness (owing to particular remoteness, extreme solitude opportunity, and "deep time" connection) has been proposed by the Arizona Wilderness Coalition for 185,522 acres along the north rim of the Grand Canyon. We ask that the draft ATMP environmental assessment (EA) discuss these units individually, and in the detail they deserve, relative to the detailed complexity of air tour management.

Philosophically, we offer this foundation. That wilderness depends as much on attainable "states of mind" as well as "condition of the land" has long been understood. (See quotes from John Muir and Albert Einstein, above). An important goal of the backpacker or wilderness hiker/camper is often for personal "emptying out" and for regeneration. Consequently, his/her extended opportunity for *immersion* in wilderness – thereby expanding the *imagination* (without constraint, fragmentation, or disruption) – becomes paramount.

In turn, this means freeing ourselves from reminders of industrial civilization, that we might "know ourselves" and our cosmos differently.

² These lake areas likely will need to be re-configured in the NPS' pending Low Water Management Plan, (in preparation) owing to the plummeting levels of Lake Mead as long-term drought continues. Re-configuration will be necessary in order to maintain the original five (5) percent "quiet" proportion specified in the Lake Management Plan for LMNRA.)

The following references (enclosed), are thus helpful in a foundational sense in this regard. We ask that they be reviewed by both agencies in their entirety, as a part of scoping.

1. "The Eloquent Sounds of Silence," by Pico Iyer
This was originally a Time Magazine Essay (1993), and served as the Preface to the National Park Service's 1995 Report to Congress on "*Effects of Aircraft Overflights on Units of the National Park System*."
2. "The Spiritual Dimension of Wilderness: A Secular Approach for Resource Agencies," by Roger Kaye, (September 2002)
This is a deeply researched, thought out "white paper", prepared by a U.S. Fish and Wildlife Service professional, based in Fairbanks, AK, (at 907-451-5707), developed in support of the "Wilderness Character" section of the draft USFWS "Wilderness Stewardship Policy," which received very favorable public comment after its publication in the *Federal Register* on January 16, 2001, USFWS Notice: at Federal Register 66 (10) Exhibit 3, at p. 3729. (Enclosed in entirety.)
3. "Why Wilderness?," by Roderick Frazier Nash
In *Plateau Journal*, pp. 55-61. See also Nash's seminal book, *Wilderness and the American Mind*, (third revised edition, 1982).
4. "Aesthetic, Affective, and Cognitive Effects of Noise on Natural Landscape Assessment," by Britton L. Mace, Paul A. Bell, and Ross J. Loomis
Society and Natural Resources 12: 225-242, (1999) (Title page, with abstract, enclosed.)
5. "Source Attribution of Helicopter Noise in Pristine National Park Landscapes," by Britton L. Mace, Paul A. Bell, Ross J. Loomis, and Glenn Haas, *Park and Recreation Management* 21(3), 97-119 (2003)
6. "Visibility and Natural Quiet in National Parks and Wilderness Areas: Psychological Considerations," by Britton L. Mace, Paul A. Bell, Ross J. Loomis, *Environment and Behavior* 36 (1), 5-31 (2004)

Once these writings (and many others they reference) have been carefully reviewed and contemplated, it will be apparent why the protection of wilderness values from the threat of rampant, uncontrolled motorization is an *ultimate concern*, i.e., that which is perceived as of greatest and most enduring importance.

We ask the FAA to consider maintaining natural quiet over all wilderness quality lands, including designated wilderness, NPS-proposed and proposed potential wilderness, and citizen-proposed wilderness in LMNRA, including the portion within Grand Canyon-Parashant National Monument.

Environmental Assessment with National Park Service Involvement

We expect a fully cooperative effort between the FAA and the NPS to develop this EA. We also expect that the FAA will prepare the EA in accordance with newly released FAA Order 1050.1E. (This almost simultaneously is superceding FAA Order 1050.1D, "Policies and Procedures for Considering Environmental Impacts," thereby permitting more sensitive and appropriate assessments for national park units.)

The FAA should defer to the expertise of the NPS staff when determining noise and other air tour impacts on national parks visitors, resources, and values. The NPS mission is protecting parks and helping visitors enjoy those parks, including in the deeper contemplative sense, and it has nearly a century of experience protecting national parks.

The *NPS Organic Act of 1916* states: "The National Park Service shall promote and regulate the use of the Federal areas known as national parks by such means and measures as conform to the fundamental purpose of the said parks... which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means (emphases added) as will leave them unimpaired for the enjoyment of future generations." [16 USC 1].

In addition, the Department of the Interior has a mandate to protect the remote and unspoiled nature of the GCPNM, as defined by the Presidential proclamation creating the monument:

"The Grand Canyon-Parashant National Monument is a vast, biologically diverse, impressive landscape encompassing an array of scientific and historic objects... Full of natural splendor and a sense of solitude, this area remains remote and unspoiled, qualities that are essential to the protection of the scientific and historic resources it contains."

"...NOW, THEREFORE, I, WILLIAM J. CLINTON, President of the United States of America, by the authority vested in me by section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), do proclaim that there are hereby set apart and reserved as the Grand Canyon-Parashant National Monument, for the purpose of protecting the objects identified above..."

"The Secretary of the Interior shall manage the monument through the Bureau of Land Management and the National Park Service, pursuant to applicable legal authorities, to implement the purposes of this proclamation. The National Park Service and the Bureau of Land Management shall manage the monument cooperatively and shall prepare an agreement to share, consistent with applicable laws, whatever resources are necessary to properly manage the monument; however, the National Park Service shall continue to have primary management authority over

the portion of the monument within the Lake Mead National Recreation Area..." [emphasis added]

Subsequent legislation – and the National Park Service *2001 Management Policies* – has reinforced NPS' mandate to conserve park resources and values in the National Park System, providing for public enjoyment of the National Park System, but only in ways that prevent the impairment of those resources, and specifically including the natural soundscape. This reference was made far more detailed and explicit with the Y2000 issuance of *NPS Director's Order 47*, re Soundscape and Noise Management.

In this regard, *Public Law 106-181, Sec. 802*, signed into law on April 5, 2000, contains Congress' determination that the Federal Aviation Administration has the authority to "preserve, protect, and enhance the environment by minimizing, mitigating, or preventing the adverse effects of aircraft overflights on public lands." The same law, *Sec. 804(e)*, also reaffirms Congress' determination to FAA that the substantial restoration of natural quiet in the great Park unit immediately abutting the LMNRA/GCPNM – the Grand Canyon National Park – proceed "forthwith" in accordance with the 1987 Overflights Act, in the face of continuing large numbers of air tours there (many of which use the LMNRA/GCPNM for access.)

Additionally, the FAA's *Draft Noise Abatement Policy 2000* – issued July 14, 2000 – included an updated policy with respect to the national parks, specifically with respect to environmental assessment and mitigation. We ask the FAA to describe the draft policy's status, particularly regarding pre-existing policy section(s) and other representations concerning intended treatment of federally managed, noise-sensitive areas.

Verification of Commercial Air Tour Flight Numbers

We have learned that in some cases, FAA's application instructions to commercial air tour operators may have been unclear, inconsistent, misunderstood, incomplete, or highly subject to manipulation in response.

Therefore, FAA should not proceed with the ATMP process for Lake Mead NRA until the interim operating authorities (IOA's) already granted have been subjected to a rigorous verification process. Furthermore, we ask that the FAA expeditiously release to the public the business names for each "IOA" granted, the number of annual flights granted for the IOA, and the parks over which those air tour operators are authorized to fly, including and in addition to the Lake Mead NRA. (Logically, any associated Grand Canyon National Park allocations and routes therein flown by the 17 LMNRA operators, should also be disclosed, in this instance.) The law also requires a public comment opportunity in response to said Notice – itself far overdue – so that these IOA's can be improved in consultation with the National Park Service and FAA.

Ambient Baseline for Analysis of Noise

There are many wilderness areas, and other noise-sensitive regions (e.g., “primitive” and “semi-primitive” designated in watercraft regulation/zoning), within the LMNRA. Particularly within these zones, the FAA and the NPS should expeditiously establish the baseline natural ambient noise level, using the NPS’ “L90” threshold, thus enabling determination of what level of noise is detectable by the human ear. From this it will be possible to assess noise impacts and to set quantitative thresholds and standards, such as can be approved and supported by the NPS personnel with expertise in soundscape and park resource protection.

Cumulative Impacts

Cumulative effects are the direct and indirect effect of a proposed project alternative’s incremental impacts when they are added to other past, present, and reasonably foreseeable actions, regardless of who carries out the action (40 CFR Part 1508.7). This includes potential actions within and outside the recreation area boundary.

Cumulative impacts, especially of noise, need to be adequately, rigorously, and quantifiably determined, for each square mile of the LMNRA. An EA that does not quantify noise impacts, much less aggregate and quantify *cumulative* impacts, of noise in the unit as a result of various human-made sources, risks being legally insufficient. Site-specific noise maps, tables, and single-event analyses, will be prerequisite.

Therefore, we request that the FAA develop a proper cumulative impacts analysis. This analysis should include other human-generated noise (motorized vessels on Lakes Mead and Mojave, other aircraft, vehicle noise, and NPS operational noise). The analysis should also include indirect and cumulative impacts on adjacent lands, such as the BLM-managed portion of GCPNM. We ask the FAA to supply maps of typical flight tracks and densities (by hour, by day, by season, etc.), particularly for wilderness and primitive zones. These should be drawn up according to the types and moving three-dimensional patterns of aircraft, and noise levels modeled/computed.

[Examples of such depictions – for high level aircraft, but needed also for those at lower levels – to support the *overall* cumulative impact analysis and public understanding would be:

1. Figure IV.9, “IFR Flight Paths for Cal Black Memorial Airport,” Cal Black Memorial Airport, Halls Crossing, Utah, Draft Supplemental Environmental Impact Statement, January 2001, at Page 4-24. (FAA) (See black and white copy attached).
2. Figure titled “Transportation Noise and Natural Soundscape Value – Aircraft Routes – 3 p.m. Takeoffs”) from a 2004 Symposium paper by Nick Miller of HMMH (found at Page 23, from his larger report posted on the web at <http://www.techtransfer.berkeley.edu/events/air/2004/Miller.pdf> (HMMH) (See black and white copy attached.)
3. Figure 3: “Average Daily Frequency of Commercial Airplanes over the U.S.” found within “Pathfinder Contrail Studies” at Sec.3.2, “Air Traffic Density” at <http://www-pm.larc.nasa.gov/sass.html> (NASA)] (See black and white copy attached.)

4. Scope of Work for the Draft EIS currently being prepared by Landrum and Brown for the *St. George, Utah Replacement Airport* (FAA). The project's Scope of Work stipulates the preparation of graphics and detailed analysis re flight patterns and associated cumulative noise impacts on nearby Zion National Park. (DEIS is pursuant to remand to FAA, ordered by the U.S. Court of Appeals, D.C. Circuit, in *Grand Canyon Trust vs. FAA*, decided May 24, 2002.) The Scope of Work is available on the St. George City Airport's website.]

We ask the FAA to include this proposed *St. George, Utah* replacement airport on the NPS Scoping Chart, "Regional Airports/Airstrips: Existing and Proposed." In addition, the FAA should add the rapidly growing nearby general aviation airports at nearby *Hurricane, Utah*, and at *Colorado City, Arizona*.

Noise Model Validation

We also request that noise model applications be subjected to validation. It is important to know the validity of the outcome of the specific application of the computer noise model(s) of choice, given the particular terrain circumstances of Lake Mead NRA, including the GCPNM portion being assessed. There are standard statistical tests for determining this, and it is these tests of the validity of said application that should be a routine part of noise modeling.

An example of such Noise Model Validation is the National Park Service Report on "Aircraft Noise Model Validation Study" (HMMH Report No. 29586029 – January, 2003; see also Federal Register, Nov. 7, 2003, NPS Notice re the same.) This completes a study to determine which of four computer models best calculate four aircraft audibility in the Grand Canyon. The study is at <http://www.nps.gov/grca/overflights> (It is understood that this summer an updated version of FAA's "TNM" model will be validated against the "preferred" model identified in that study.)

"Forecasting" in Grand Canyon region; and the National Parks Overflights Act (P.L. 100-91)

One readily and *reasonably foreseeable* action for cumulative impacts analysis, therefore, is that between 2004 and 2008, the noise from air tours over the Grand Canyon National Park will need to be significantly reduced from currently authorized levels, in order to timely satisfy the requirements of the 1987 Overflights Act, the presidential directive of 1996, and the Congress's subsequent direction that this be "forthwith."

Logically, one would expect commensurate, coordinated account taken in any independent FAA forecasts in the areas with which we are here focused. Consequent reduction in the number of "in transit" air tours overflying Lake Mead NRA en route to the Grand Canyon should be forecasted in the near-term (2005-2010) – for each alternative -- within this EA, with the consequent increment of noise reduction.

Therefore, in developing each alternative for this draft Environmental Assessment, the FAA and the NPS should also take into account the entire range of options (and likely timeline) for the air tours over the Grand Canyon itself, as independently phased or

otherwise controlled by the Overflights Act. A similar timeline and set of options will also ensue from the enforcement of the Final FAA Rule on National Air Tour Safety Standards (pending).

The total number of annual air tours listed in this LMNRA Scoping Document for ATMP should not, therefore, be considered as the acceptable or expected number of commercial air tours over the LMNRA in perpetuity. Other options that should be publicly assessed for managing these tours are as listed in the Air Tour Management Act (P.L. 106-181), and in the scoping documents.

Supplemental Metrics

1. "Median Quiet Interval" (MQI)

We request the FAA utilize a supplemental, audibility-based metric, the "Median Quiet Interval" (MQI) for a variety of sites within the wilderness areas and for other noise-sensitive designated quiet zones. The MQI is defined as the median time interval where there is no motorized noise-intrusion audible. This would provide a key, "user-friendly" and quantitative impact assessment indicator. The FAA and the NPS would thus assess the time intervals between passage of aircraft and the resultant disturbance of natural quiet, at a variety of back-country sites within LMNRA.

2. "Time Above" (TA)

For noise-sensitive areas, we request – consistent with Park Service established policy and expertise – that the FAA employ for aircraft noise another audibility based metric, specifically, "Time Above 'L90'". (In practical terms, this would approximate "Time Above 20 dBA" for most backcountry sites within the LMNRA. This Time Above metric (TA20) for the backcountry-zoned portions of the LMNRA would hopefully approach zero in many or most of them, if a good ATMP is prepared.)

3. "Number of Events" (N-Level)

This is the number of times that noise events' Lmax exceed any given decibel level, during a specified period of time.

4. "Equivalent Sound Level" (Leq)

This is the average noise level over a specified time period, such as "curfew hours" or "air tour hours."

Clearly, we are pioneering a whole new area of environmental/noise understanding. The use of supplemental metrics is essential to public understanding and non-confusing assessment.

References: Supplemental Metrics

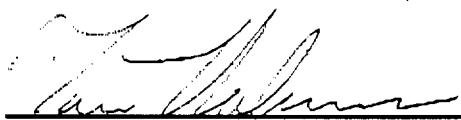
The FAA and the NPS should carefully review the February, 2002 Recommendation and Finding of the FICAN, re DNL vs. Supplemental Metrics, based on its February 2001 "Symposium on the Value of Supplemental Noise Metrics in Aircraft Noise Analysis," along with all symposium papers (available on the web at <http://www.fican.org/Pages/Sympos03.html>) (Cover page attached.)

See also: William Albee, "Why We Must Supplement DNL Noise Analysis", under the "White Papers" link at <http://www.wyle.acoustics.com>. (Cover page attached.)

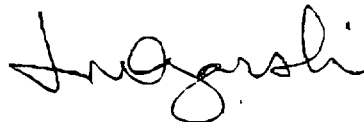
Conclusion

We appreciate the opportunity to have presented these comments, and request that we receive all future notices and information regarding these important issues. As we are embarking on a significant, new pioneering venture in terms of American airspace and national park history, we hope this material will facilitate deeper understanding, and elicit solutions which benefit future generations, and other Park units as well.

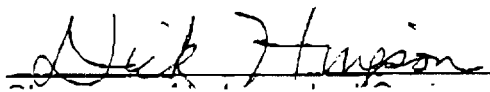
Sincerely yours,



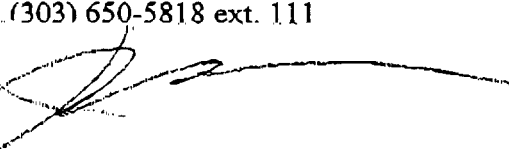
Tom Robinson
Director of Government Affairs
The Grand Canyon Trust
2601 North Fort Valley Rd.
Flagstaff, AZ 86001



Jill Ozarski, Colorado Plateau Monuments Associate
The Wilderness Society
Four Corners Regional Office
1660 Wynkoop Street, Suite 850
Denver, CO 80218
(303) 650-5818 ext. 111



Dick Hingson, Chair Noise/Aviation
Subcommittee
The Sierra Club - Recreation Issues
Committee
PO Box 630132
Rockville, UT 84753



Julie Sherman, Associate Field Representative
Sierra Club, Grand Canyon Chapter
2740 W. Lynette Drive
Flagstaff, AZ 86001
(928) 213-1176

Enclosures:

cc: Bill Dickinson, Superintendent, Lake Mead NRA
Roger Taylor, Manager, BLM Arizona Strip Field Office
Dennis Curtis, Grand Canyon-Parashant National Monument Manager